

Affordable Housing Location Suitability Model

*A case study from
Iowa City, Iowa*

Who needs affordable housing?

- Many elderly and people with disabilities
- Cashiers, cooks, janitors, bakers, sales clerks, child care workers, home health aides
- School bus drivers, stylists, preschool teachers, school associates, research assistants and others

The Iowa City metro area needs people who
need affordable housing!

Rental Vacancy Rates

Within 1 mile of downtown Iowa City

# Bedrooms	2011 Vacancy Rate
1-Bedroom	1.30%
2-Bedroom	2.20%
3-Bedroom	1.70%
4-Bedroom	0.01%
Overall Average	1.30%

**A household of 3 earning \$21,400,
(30% of the Median Income) can
afford a monthly rent of no more than
\$535**

**The Fair Market Rent (FY12) for a two
bedroom unit is
\$746**

A minimum wage earner
(earning \$7.25 per hour)
must work **86 hours per week** to afford
a two-bedroom unit at Iowa City's Fair
Market Rent (\$746).

Federal Funds: Community Development Block Grant, HOME & ICHA

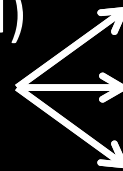


City of Iowa City

Population 69,000



Acquisition (rental/owner occupied)
New Construction
Rehabilitation
Down-payment assistance
Rent assistance



The Peninsula Neighborhood



Rental Housing



Owner-occupied Housing

Affordable Rental Housing



The Housing Fellowship – Rental
Housing



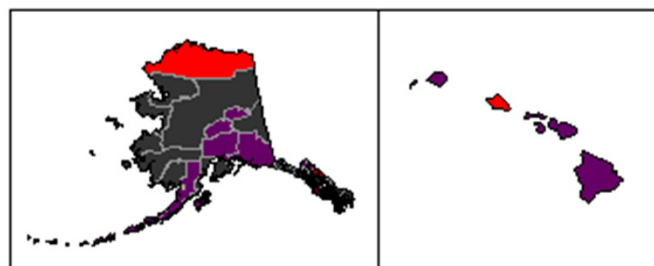
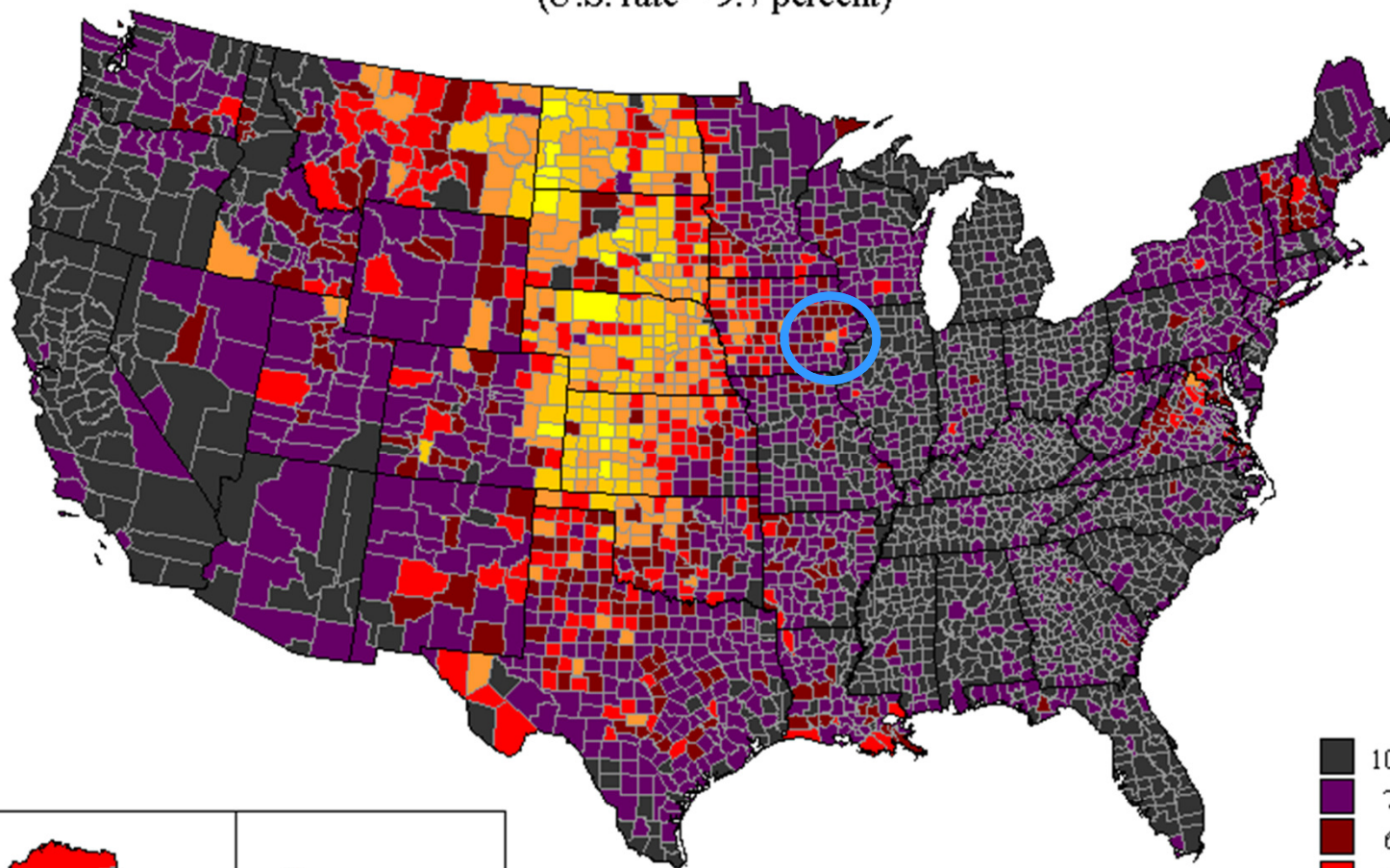
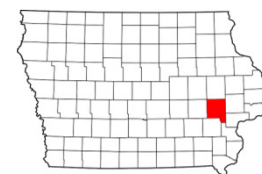
MECCA Transitional Housing

Affordable Housing that is not assisted or subsidized by the City of Iowa City

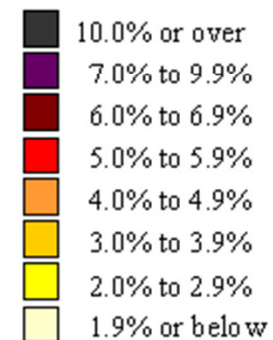


Unemployment rates by county, July 2009 – June 2010 averages

(U.S. rate = 9.7 percent)

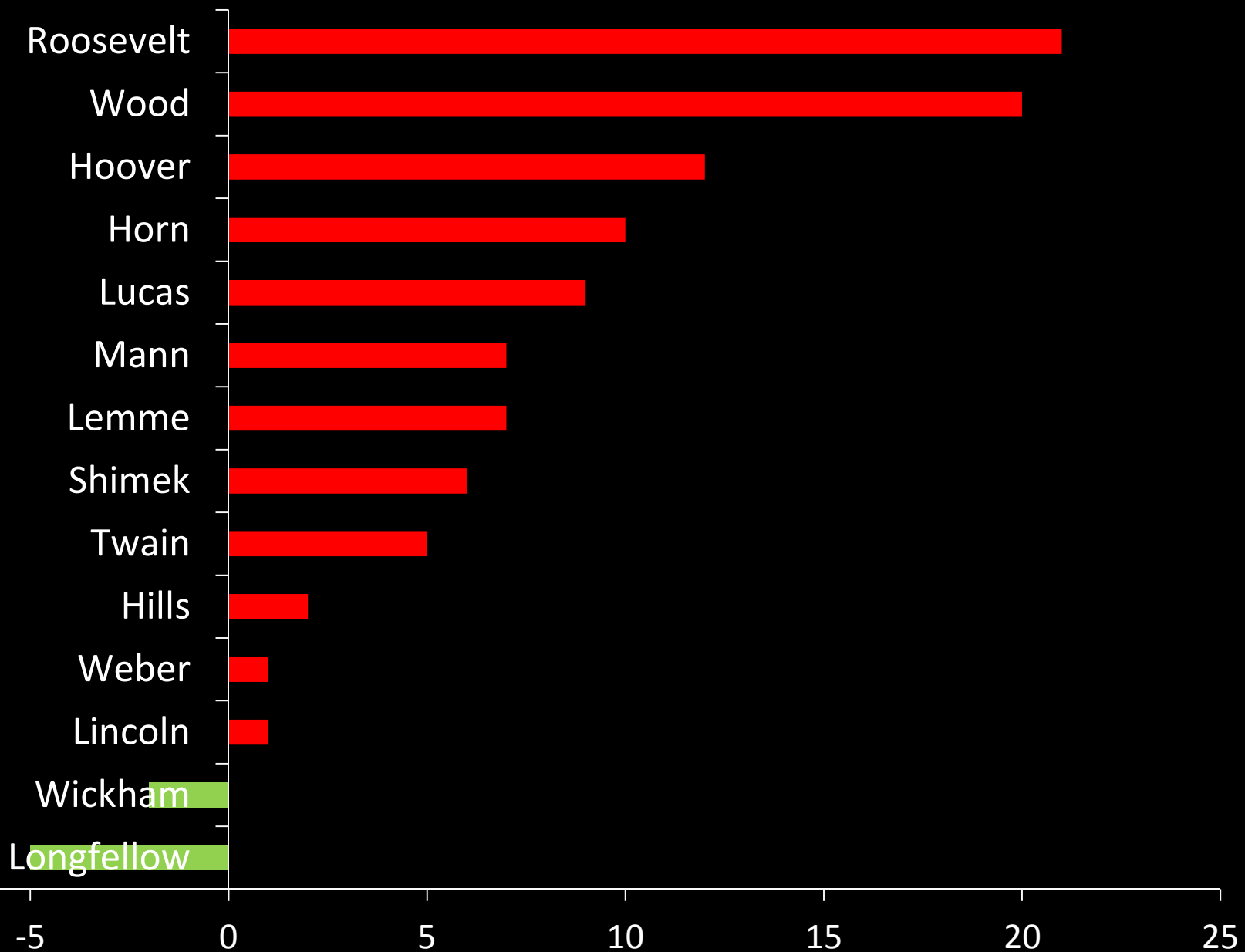


SOURCE: Bureau of Labor Statistics
Local Area Unemployment Statistics



% Change Free & Reduced Lunch Rates

2004-2009



Section 8 wait list growing, official says

Written by

Josh O'Leary
Iowa City Press-Citizen

12:26 AM, Mar. 23, 2011

The waiting lists for Iowa City's Section 8 and public housing programs have reopened after being shut for nearly a year to new applicants, Housing Administrator Steve Rackis told the Iowa City Council Tuesday.

The council gave its approval of the Iowa City Housing Authority's annual plan, a routine report that details the division's current programs and its strategy for addressing housing needs.

The Housing Authority closed its waiting list in 2010 because of a long line of names -- including many that had been on it for two-plus years -- which was giving "false hope" to applicants, Rackis said.

The Housing Authority, which serves all of Johnson County and parts of Washington and Iowa counties, began accepting applicants for its programs again in February.

The Housing Authority administers 1,214 Section 8 vouchers, which are funded through the U.S. Department of Housing and Urban Development, for low-income

families, the elderly and persons with disabilities. HUD has not increased the number of vouchers for Iowa City since 1998.

As of January, Iowa City had 825 households using vouchers, Coralville had 211 and North Liberty had 86, the report said. Five percent of the total number of rental units in Iowa City were occupied by voucher users.

People with disabilities made up 55 percent of the Housing Authority's participants in 2010, households with minor children (which could include disabled participants) made up 41 percent, and the elderly made up 15 percent.

In the Iowa City School District, 811 of the 11,692 total students are from families that are participants in housing programs.

"The program was designed by Congress to help elderly, disabled and working families, and you can see by this data that

Advertisement

Iowa City, Iowa



Change in Average Home Sale Price

2001-05 vs 2006-10

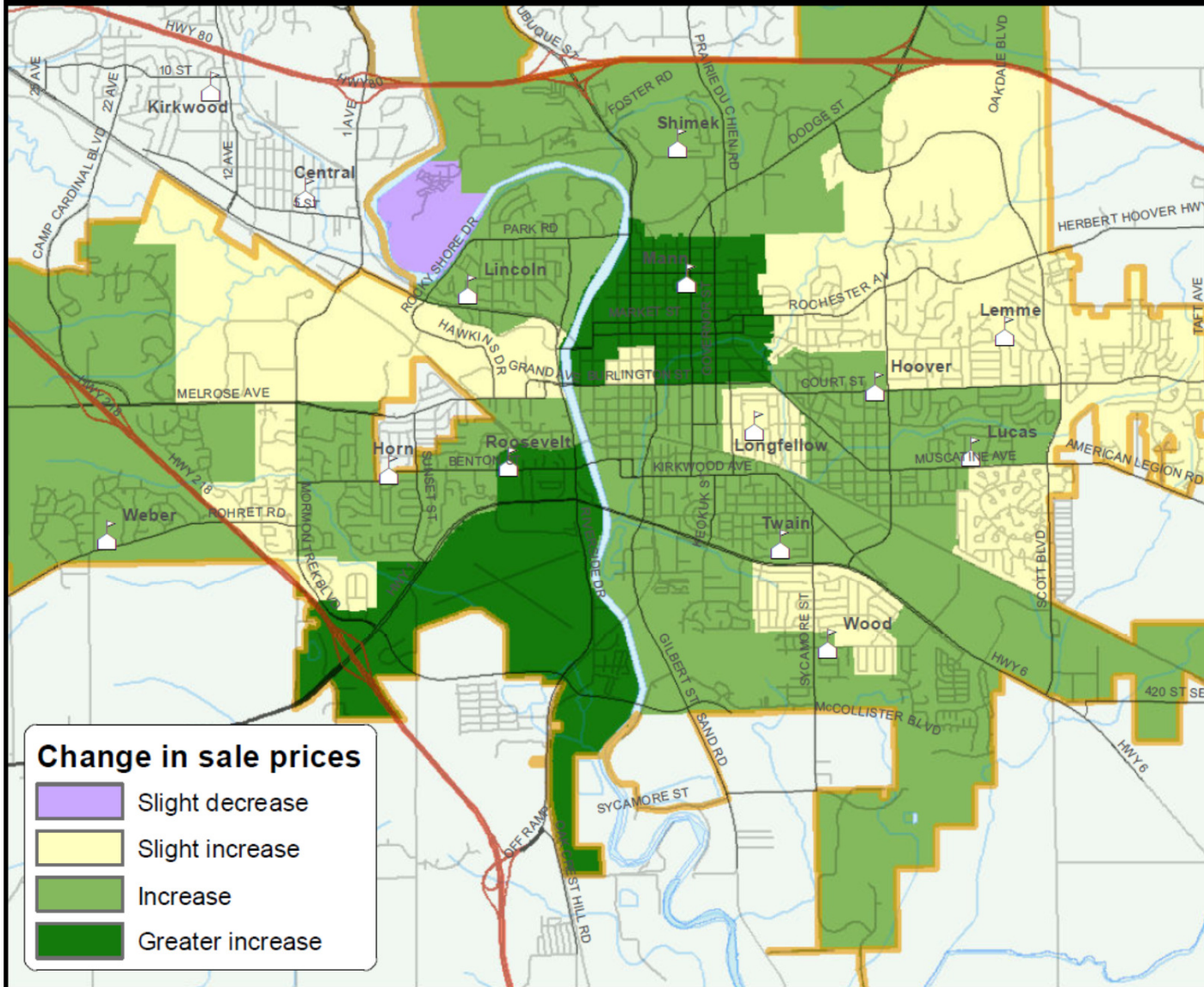
Mapped by neighborhood boundaries
defined by City Assessor

0 1 2 Miles

Prepared by: K. Ackerson

Date Prepared: 1/24/2011

Data Source(s):
Iowa City Assessor



- Increasing demand for workforce housing
- Low rental vacancy rates
- Escalating home prices
- NIMBY
- Negative perceptions of affordable housing and who needs the housing

Where should subsidized housing be?

Council's goals/concerns discussed Nov. 10, 2010

1. "We do not want to further burden neighborhoods and elementary schools that already have issues related to concentrations of poverty, and"
2. "We need to have a better idea of the Iowa City Community School District views on the affordable housing issue, and"
3. "There is a desire to have **diverse neighborhoods** in terms of a range of income levels."

Multiple Spatial Criteria

1. Distance to existing subsidized housing locations
2. Elementary school *mobility*
3. Elementary school *academic performance*
4. Elementary school *free and reduced lunch rate*
5. Crime density
6. Median household income
7. Change in residential sale prices

Iowa City, Iowa



Change in Average Home Sale Price

2001-05 vs 2006-10

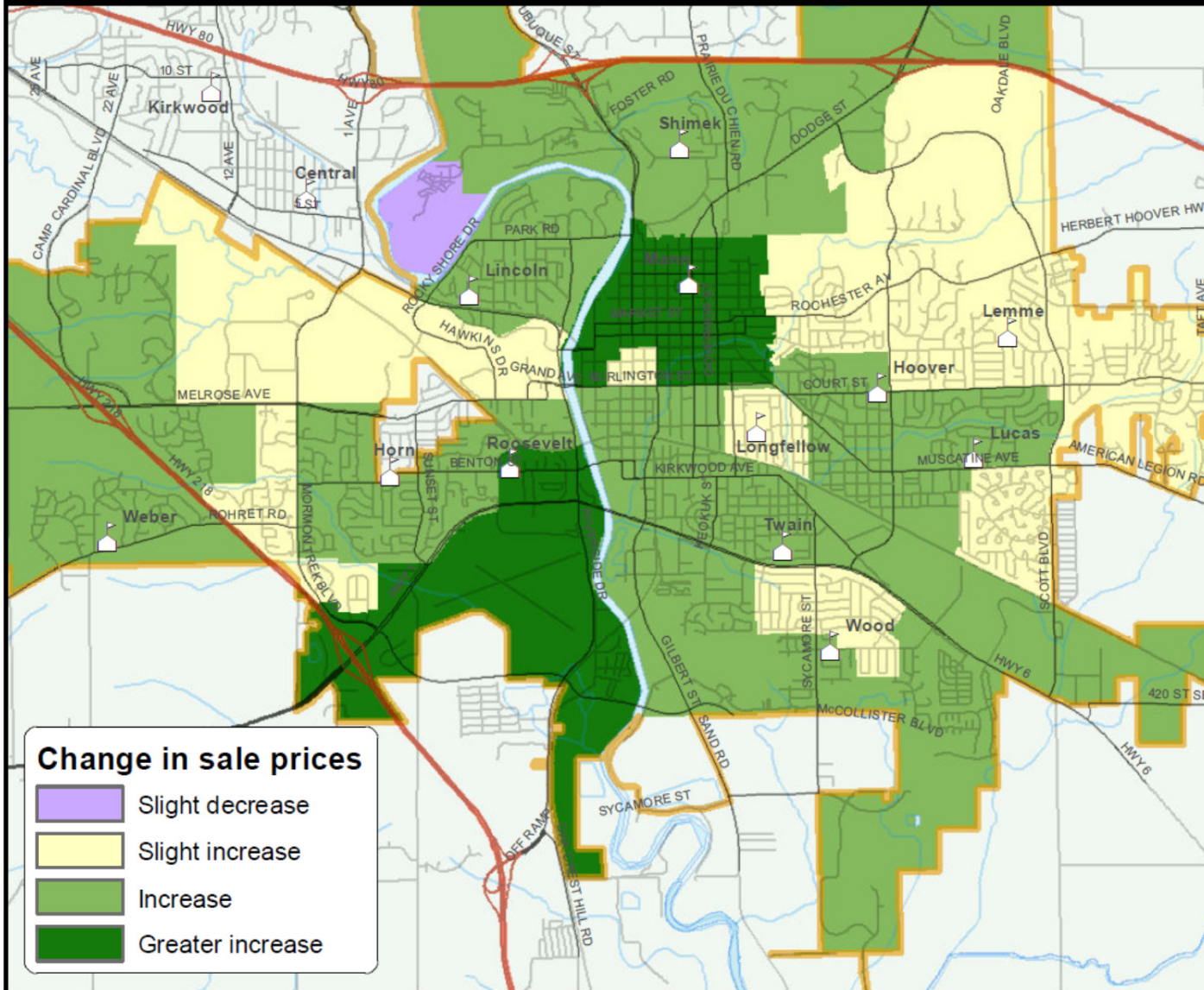
Mapped by neighborhood boundaries
defined by City Assessor

0 1 2 Miles

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Date Prepared: 1/24/2011

Data Source(s):
Iowa City Assessor



Aggregated by
City Assessor-
defined
neighborhoods

Median Household Income

Aggregated by Census tracts

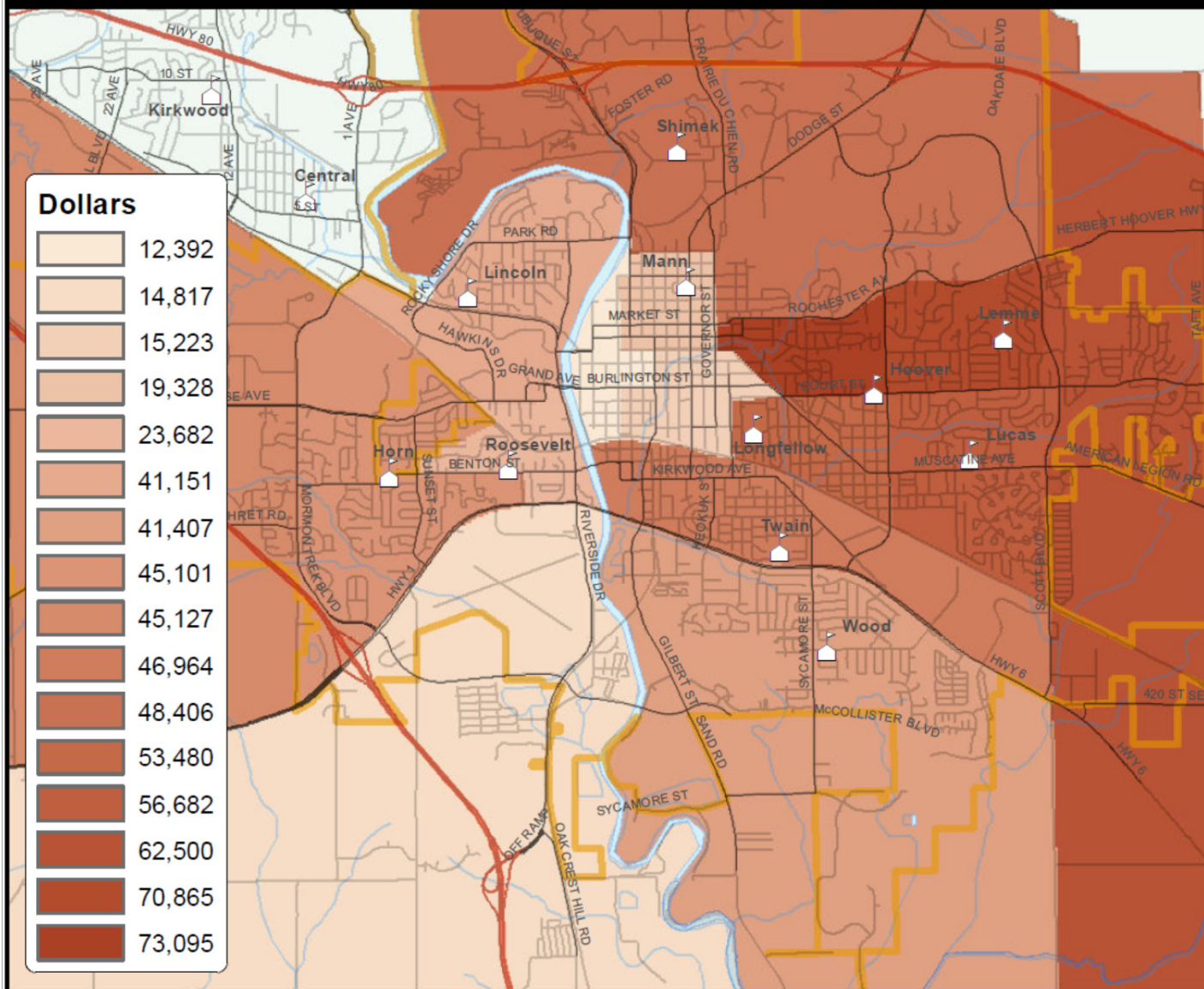


A horizontal number line with tick marks at 0, 1, and 2. The word "Miles" is written at the right end. A bracket is drawn above the line, starting at 0 and ending at 1.



Date Prepared: 1/24/2011

Data Source(s):
2000 U.S. Census



Aggregated by
Census tract

Iowa City, Iowa

Crime Density
6/1/08 - 5/31/09



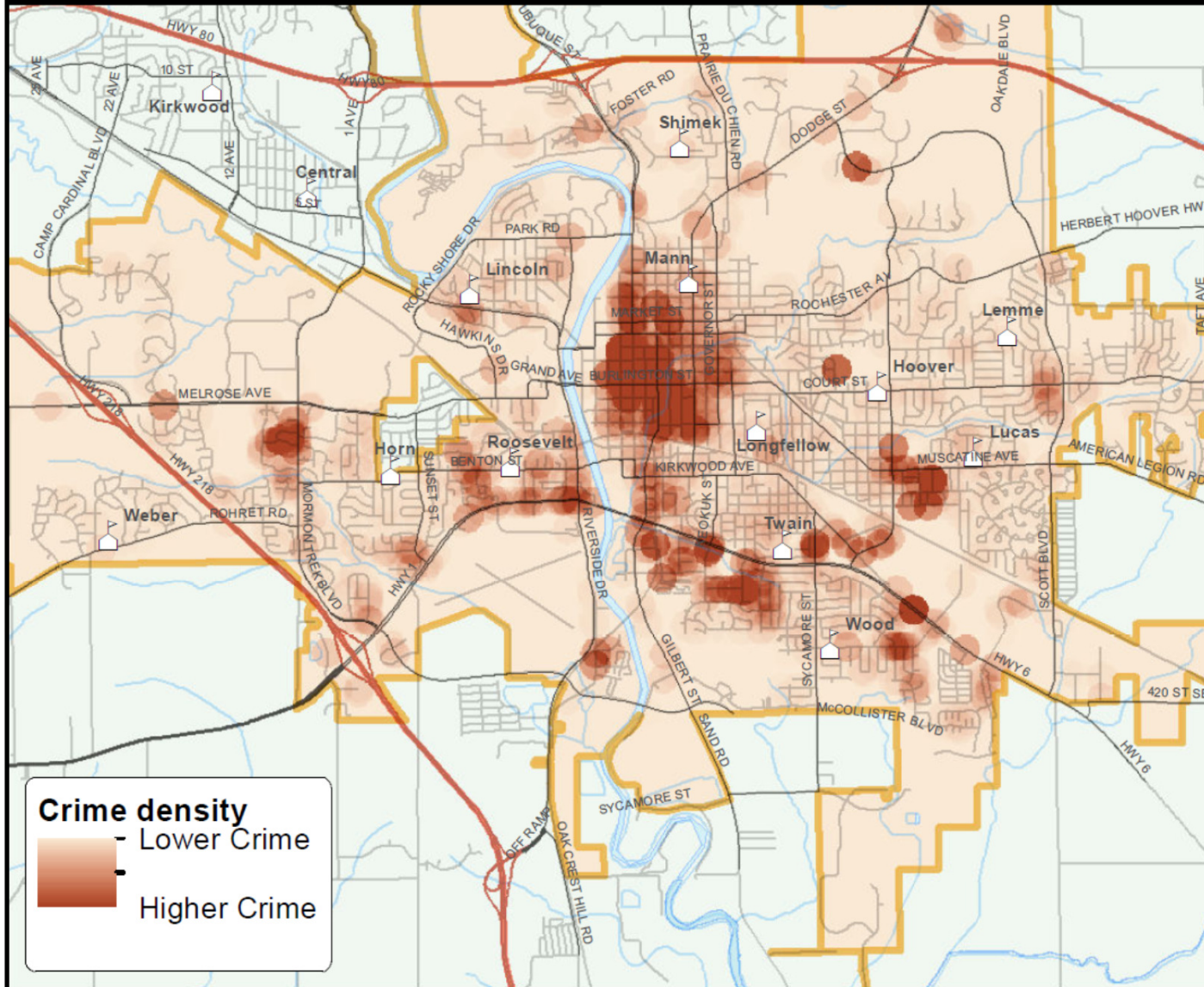
0 1 2 Miles



Prepared by: K. Ackerson

Date Prepared: 1/24/2011

Data Source: Iowa City Police



Aggregated by
crimes within
500 feet

Iowa City, Iowa

Free & Reduced Lunch Rate

Elementary school
catchment areas
clipped by city limits



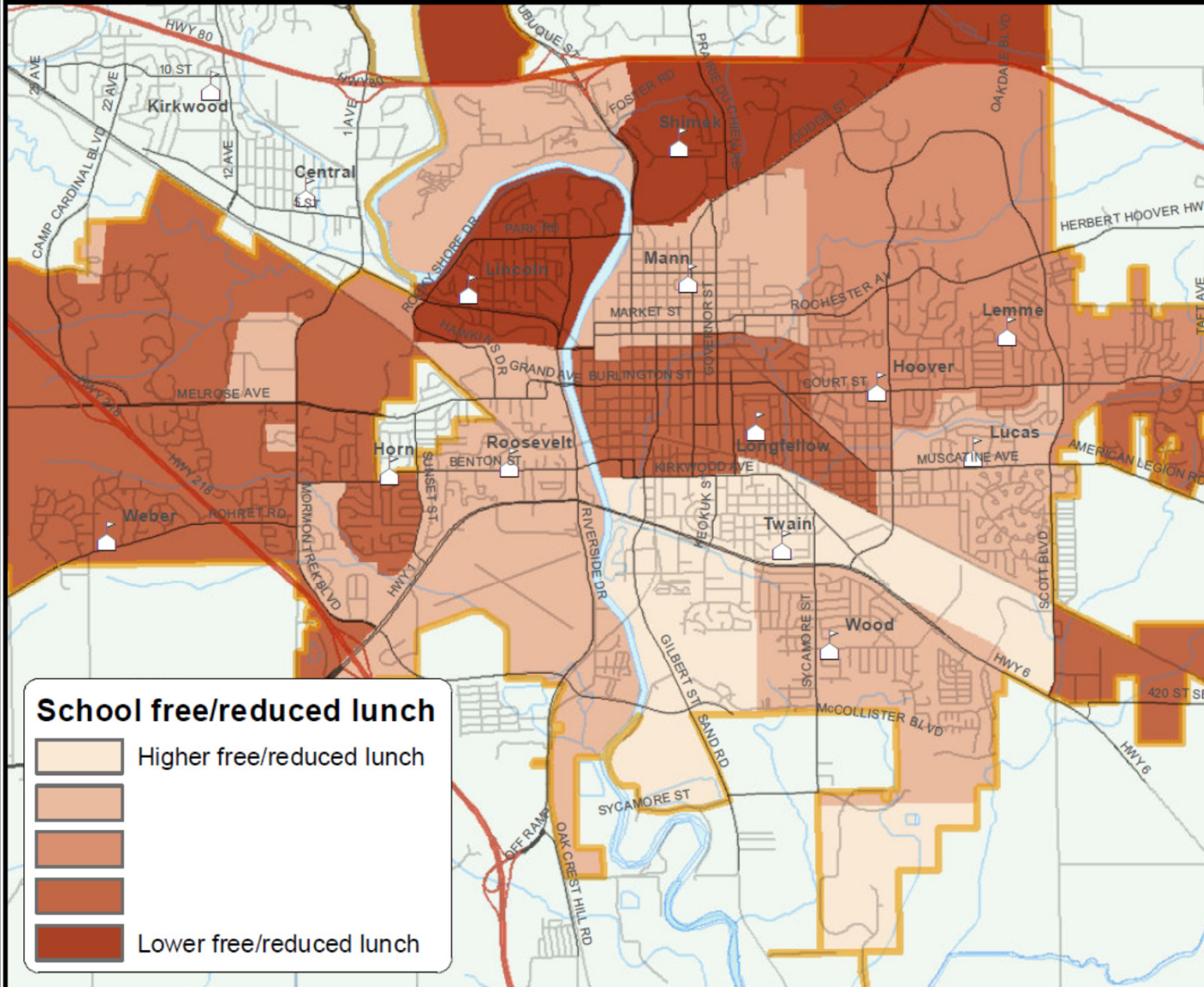
0 1 2 Miles



Prepared by: K. Ackerson

Date Prepared: 1/24/2011

Data Source: ICCSD
Enrollment Report, 2009-10



Aggregated by
elementary
school catchment
area

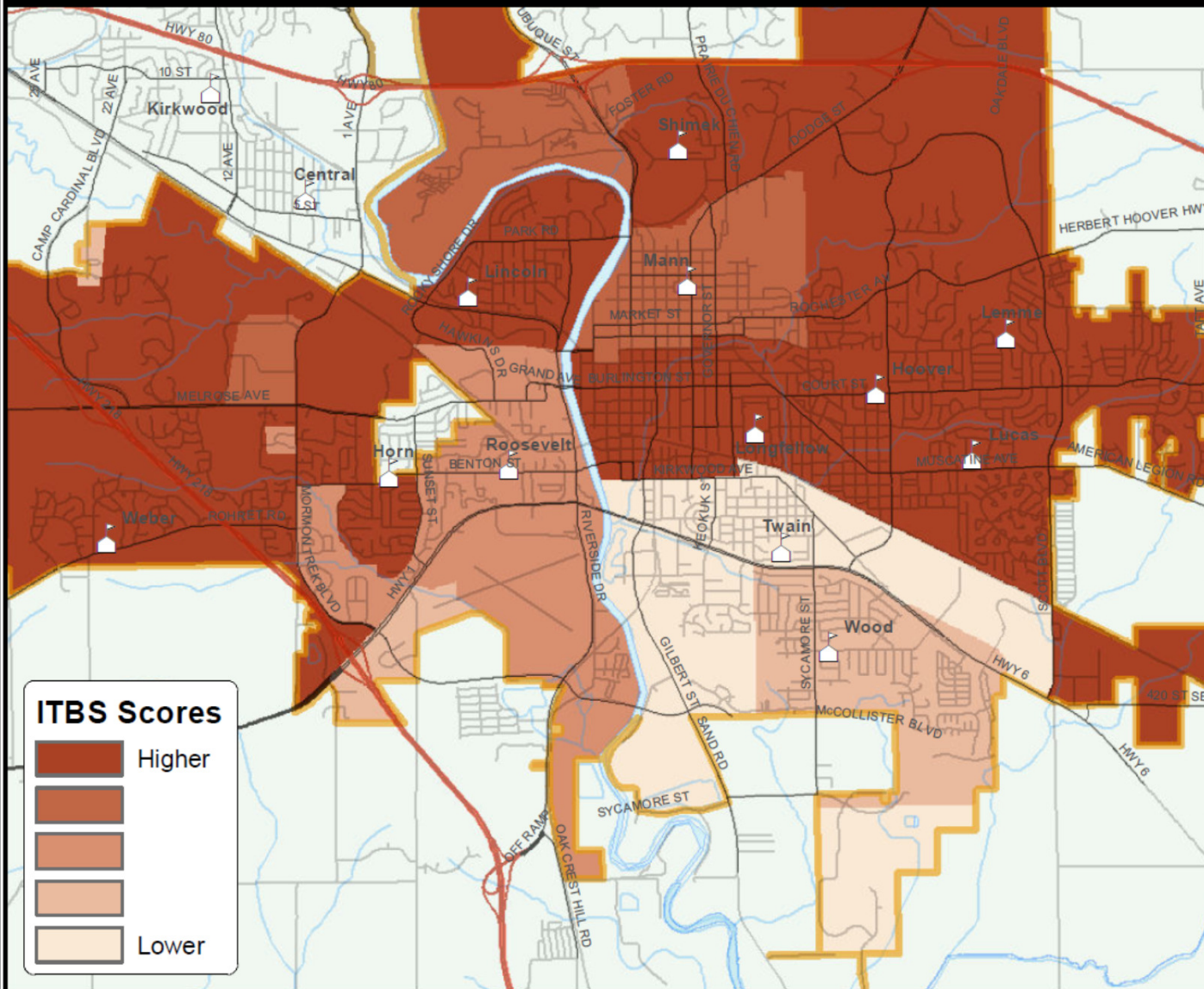
Elementary school
catchment areas
clipped by city limits



A number line starting at 0 and ending at 2. There is a solid dot at 1 and a solid dot at 2. A horizontal line segment connects the dots at 0 and 1, and another horizontal line segment connects the dots at 1 and 2. An arrow points to the right above the line segment from 1 to 2. The word "Miles" is written at the end of the line.



Data Source: ICCSD



Aggregated by
elementary
school catchment
area

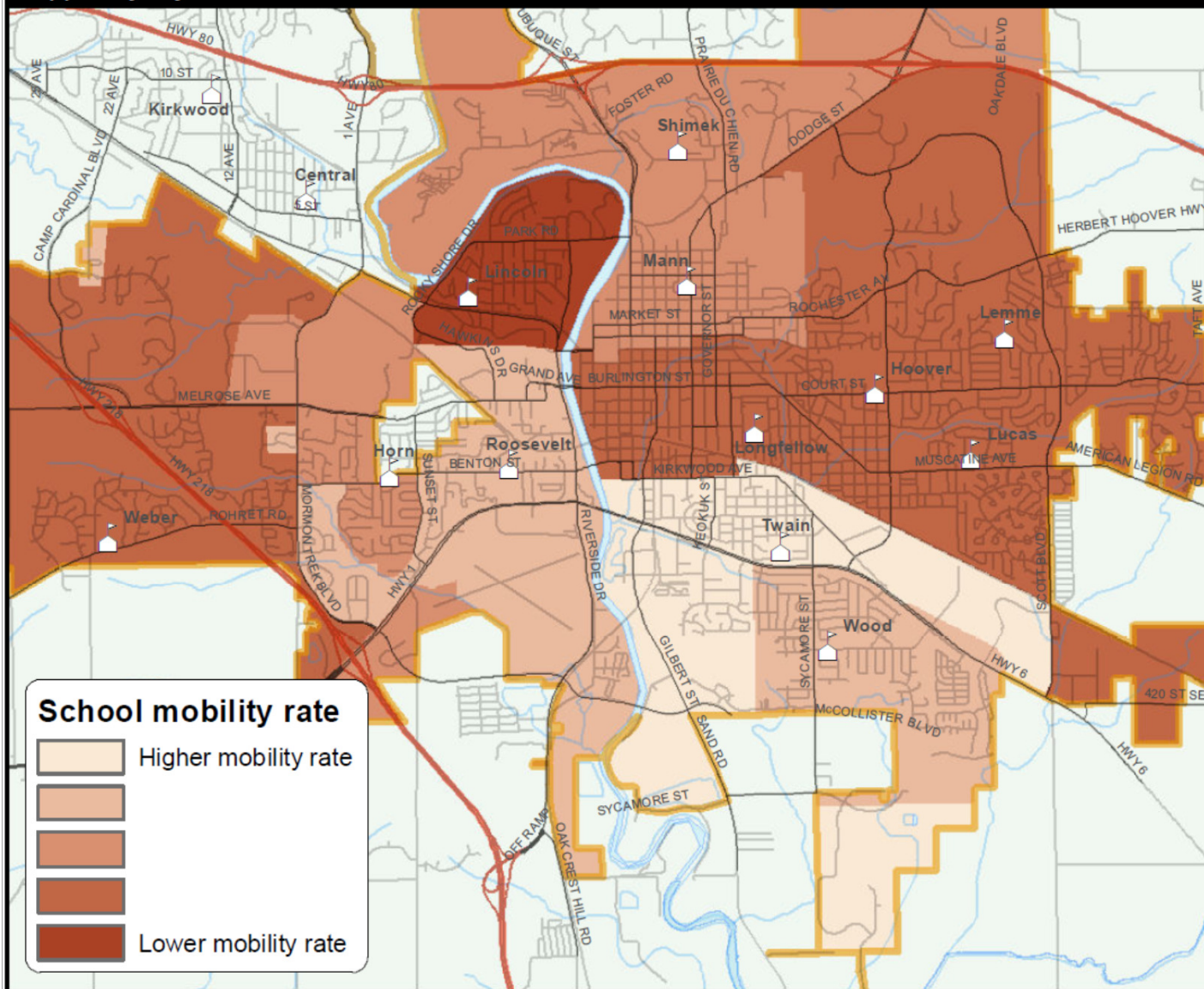
Elementary school
catchment areas
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Data Source(s):
ICCSD Safety and Climate
Annual Report, 2009-10



Aggregated by
elementary
school catchment
area

Iowa City, Iowa

Affordable Housing Location Model

CDBG & HOME assisted rental
housing eligibility - new
construction & acquisition



0 1 2 Miles

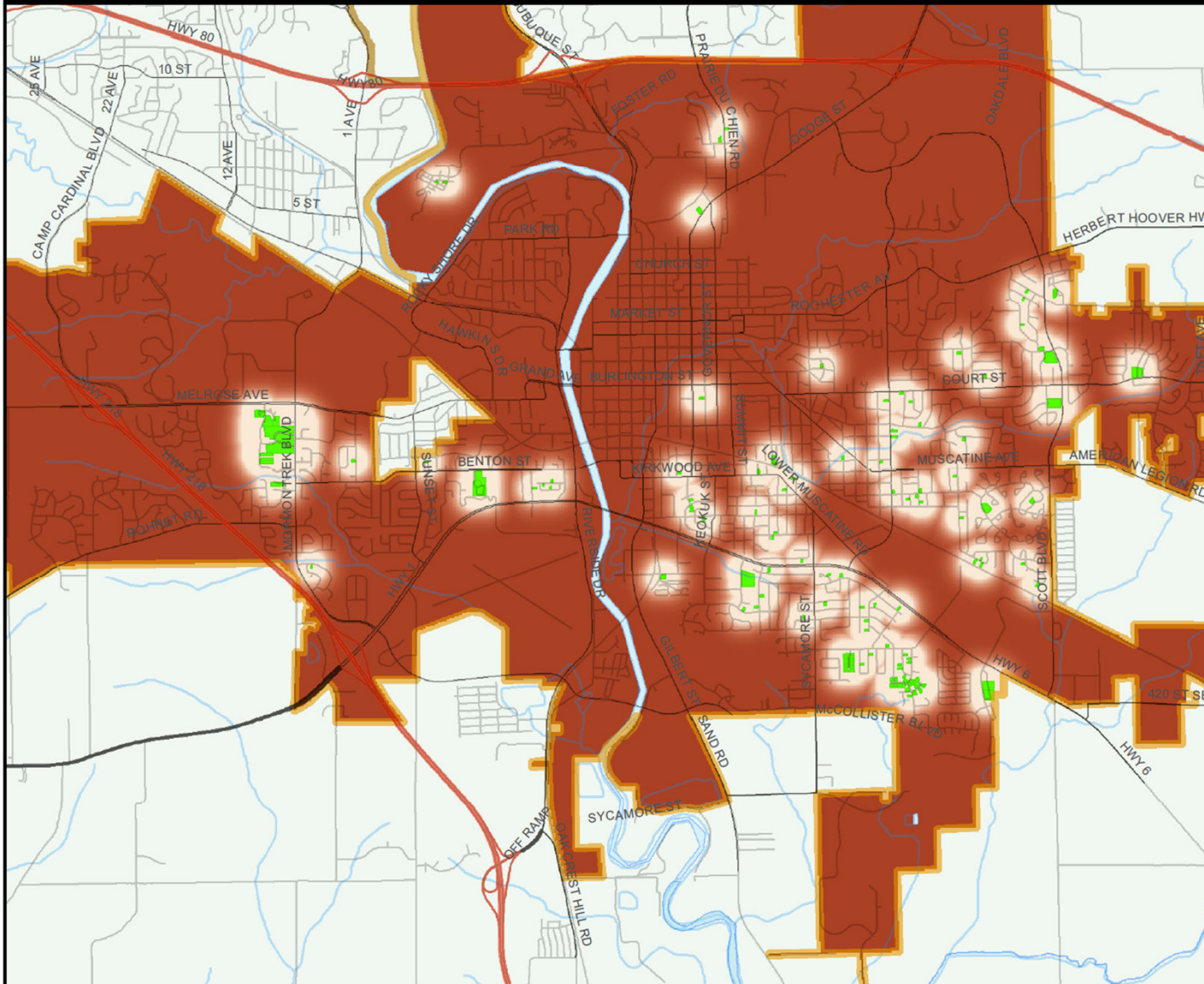


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Date Prepared: 1/24/2011

Data Source(s):

2000 U.S. Census, Police,
Iowa City Assessor, PCD Dept., ICCSD



Analysis of Data

(Continued)

Weighting data

x40 distance to existing assisted rental housing

x20 elementary school mobility rate

x10 median household income

x10 change in residential sale prices

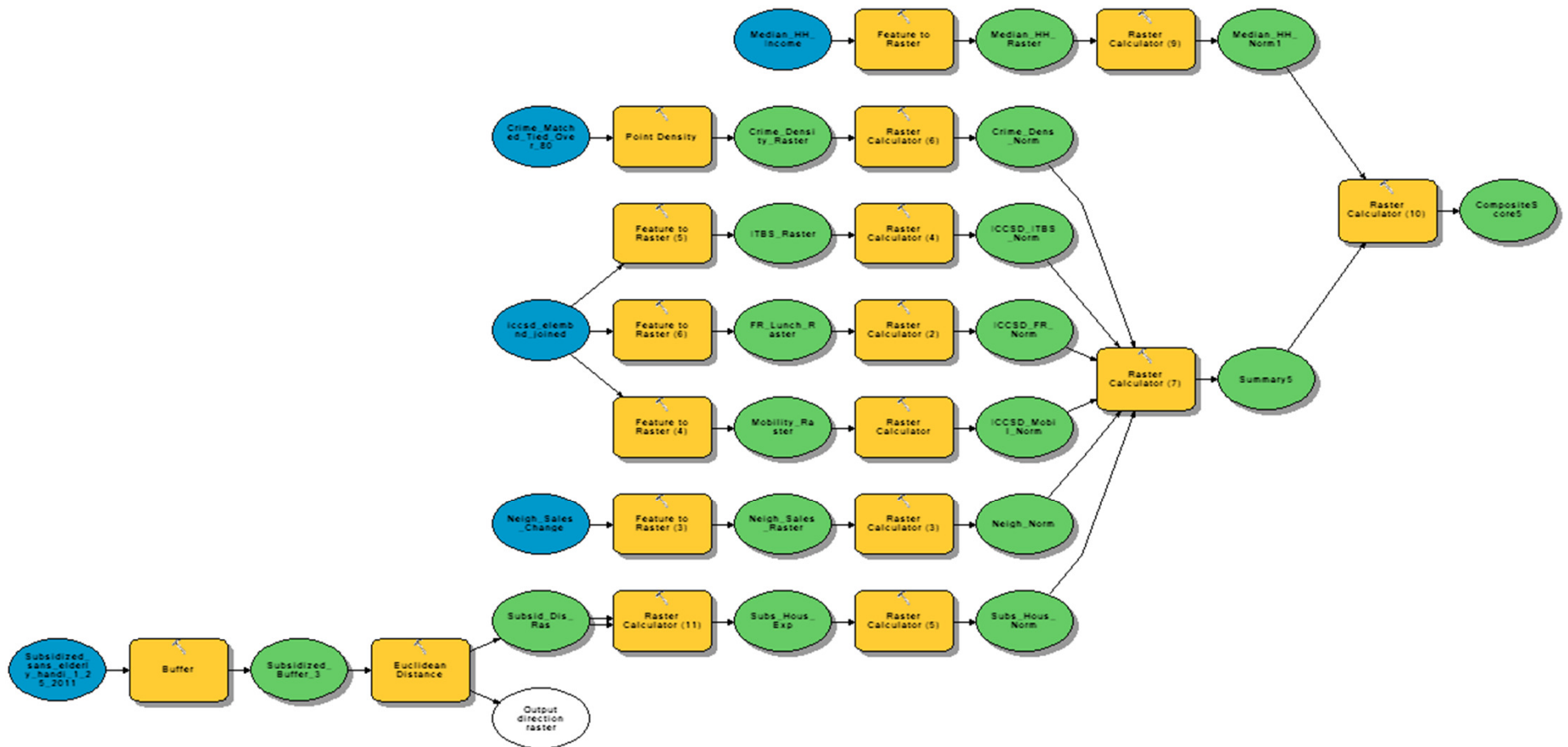
x10 crime density

x 5 elementary school ITBS performance

x 5 elementary school free & reduced lunch rate

100

Model operations



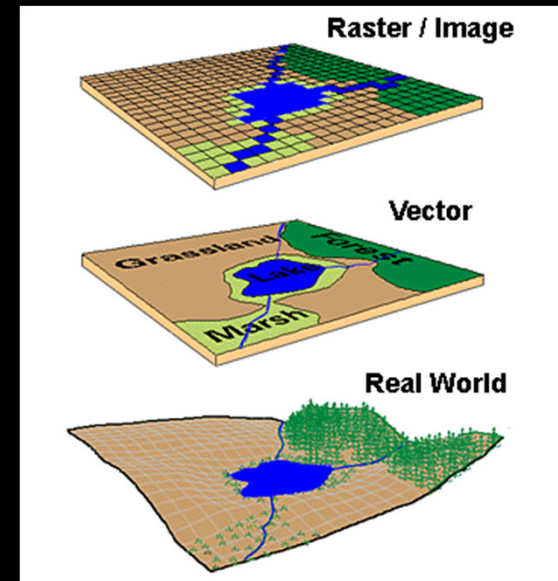
Analysis of Data

1. Create grid (i.e., raster)
2. Standardize data (linear transformation)

Percent = 0-100%

Distances = 0-10,000ft

Crime = 0-800 within 500ft

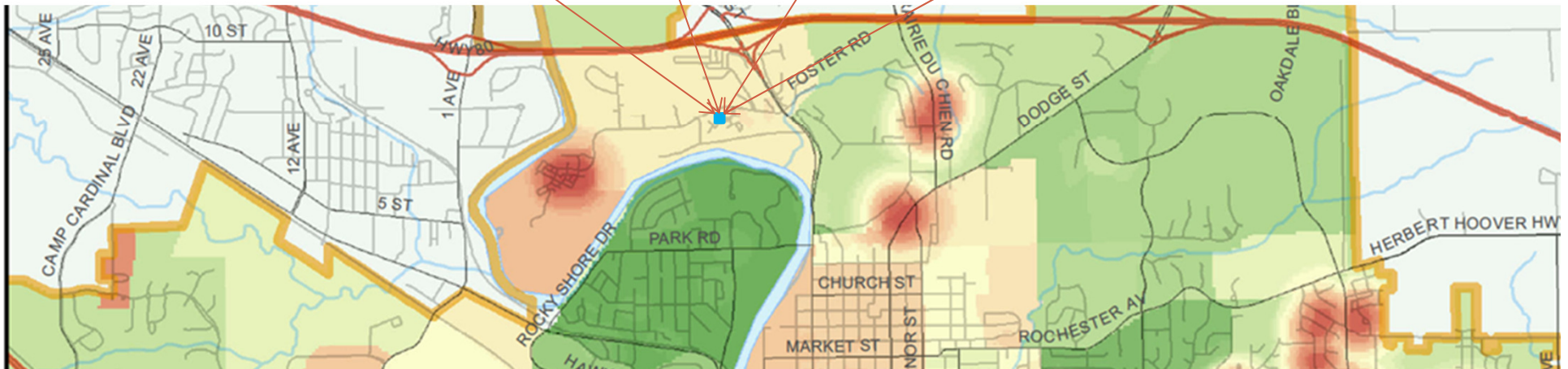
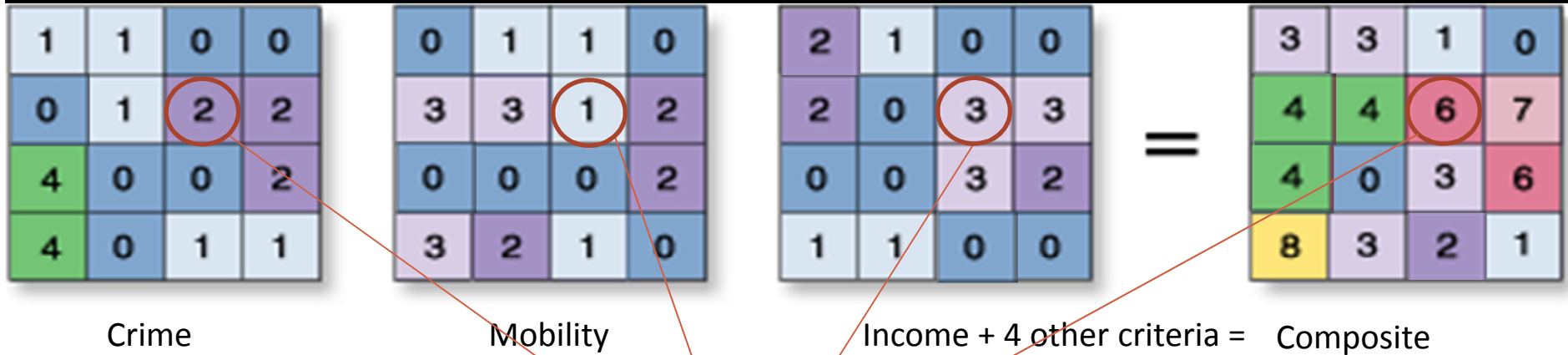


$$0 \text{ to } 1.0 = \frac{(x - \text{minimum cell value in dataset})}{(\text{maximum cell value} - \text{minimum cell value})}$$

Analysis of Data

(Continued)

4. Combining all variables



Iowa City, Iowa

Affordable Housing Location Model

CDBG & HOME assisted rental
housing eligibility - new
construction & acquisition



0 1 2 Miles

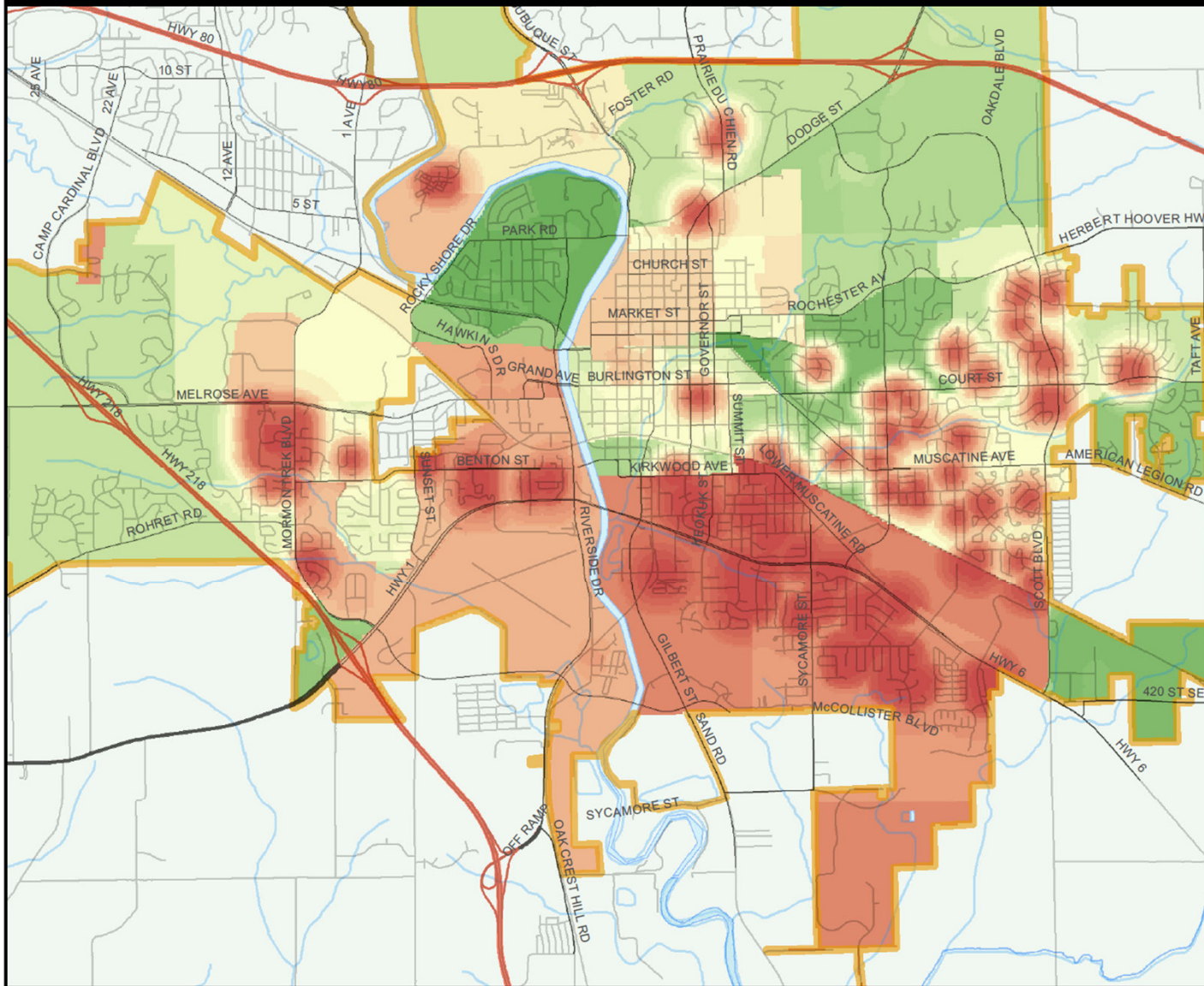


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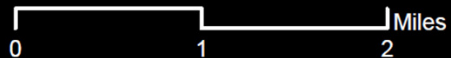
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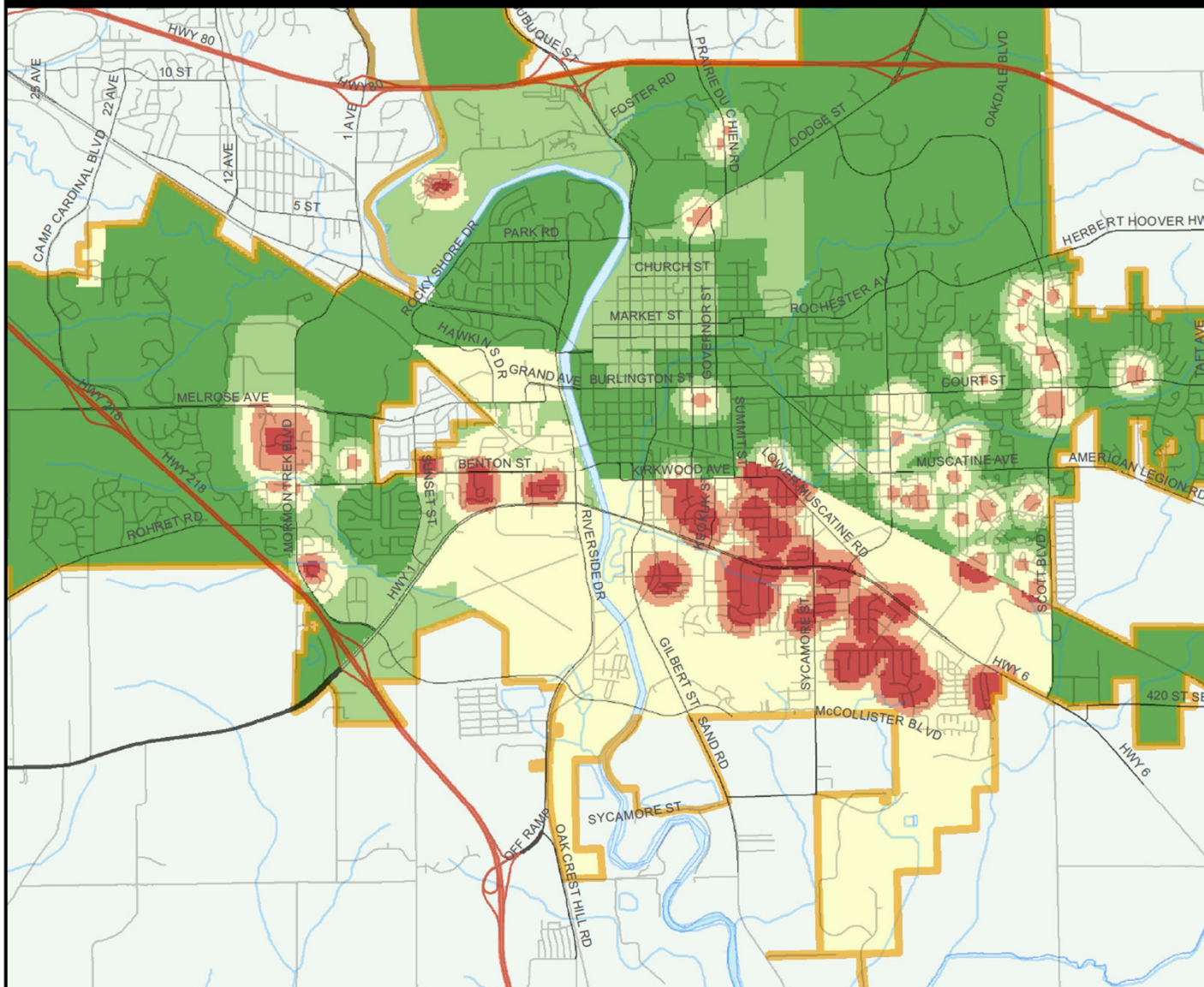


Affordable Housing Location Model



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Iowa City, Iowa

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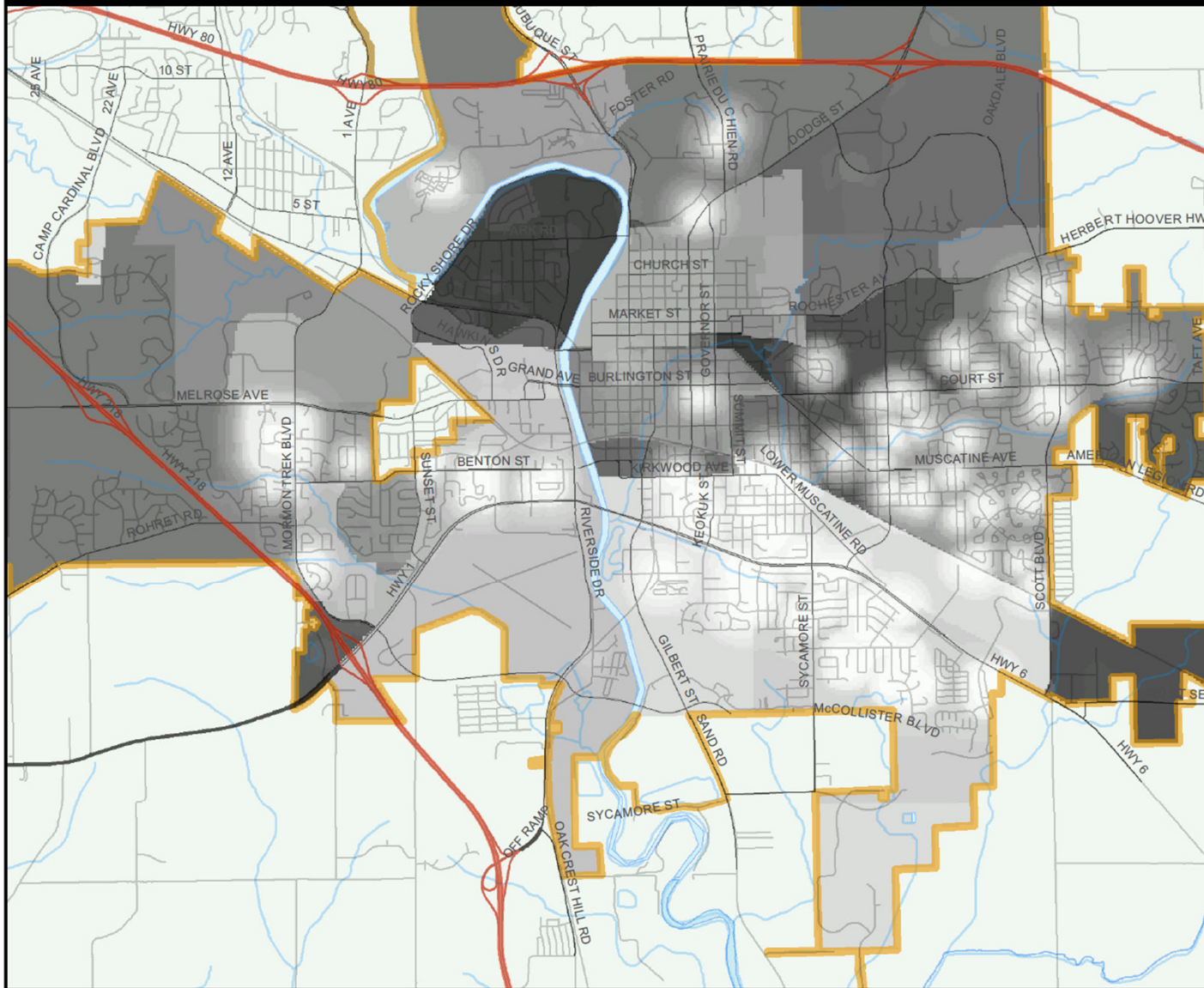
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Iowa City, Iowa

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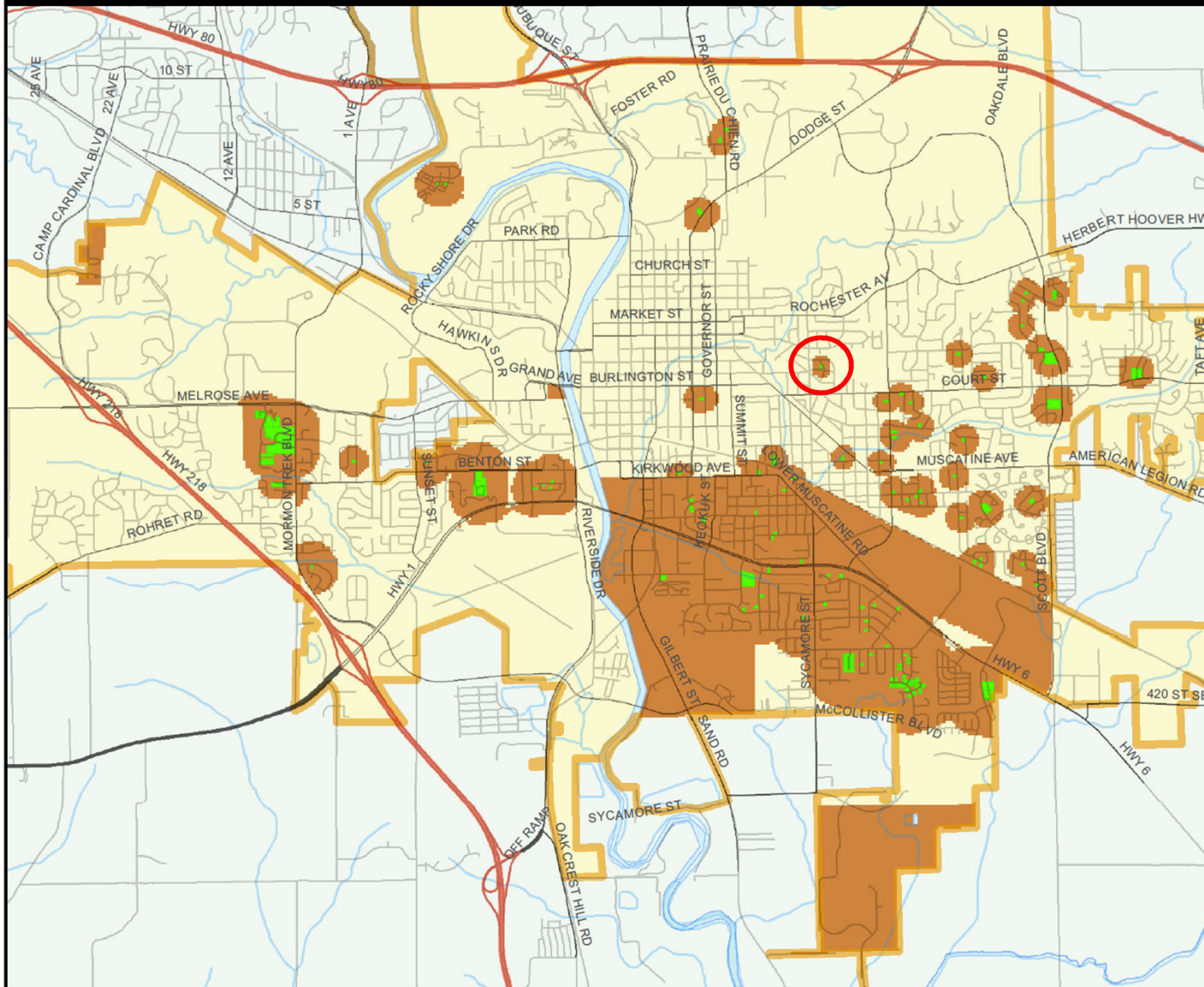
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0 1 2 Miles

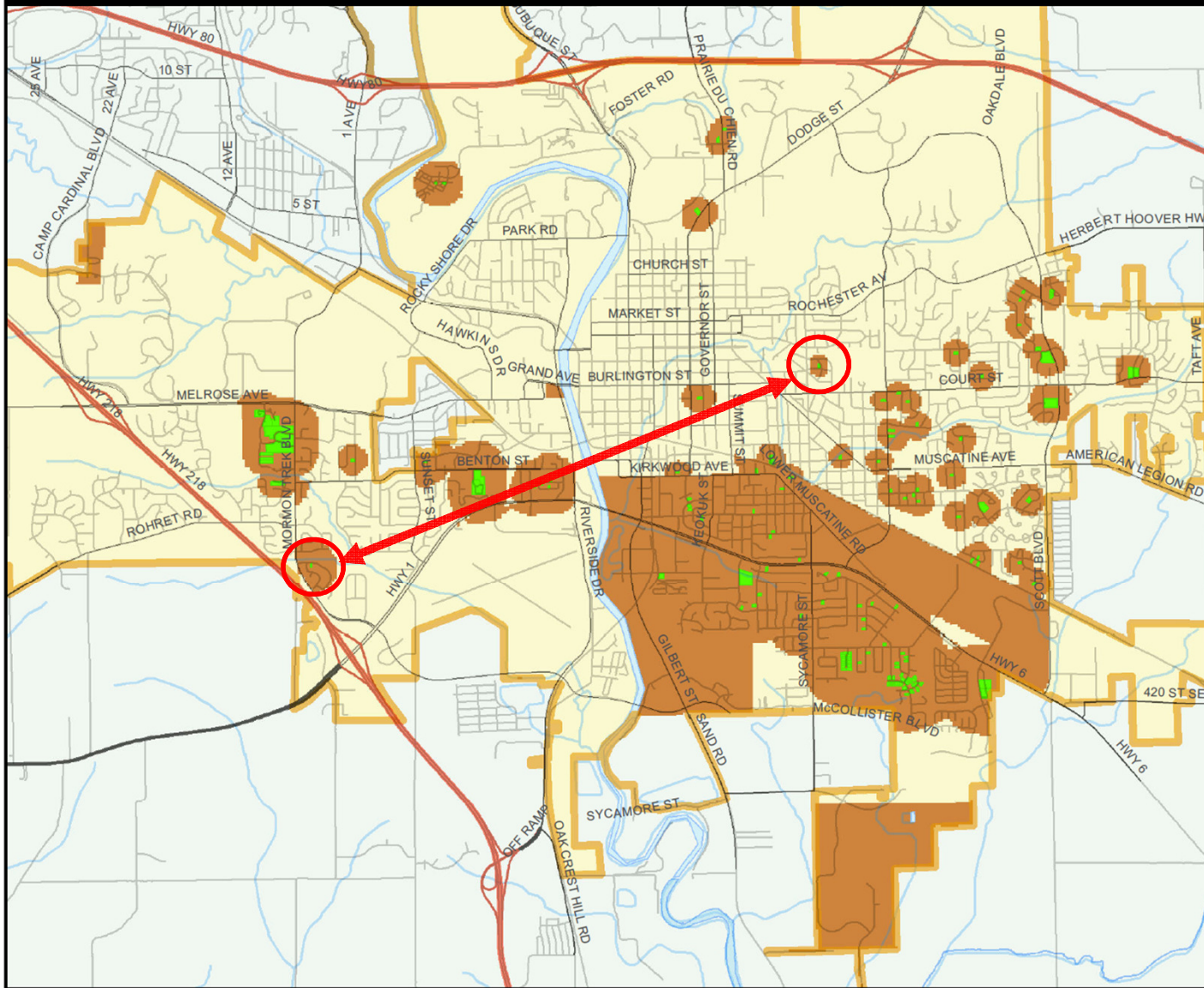


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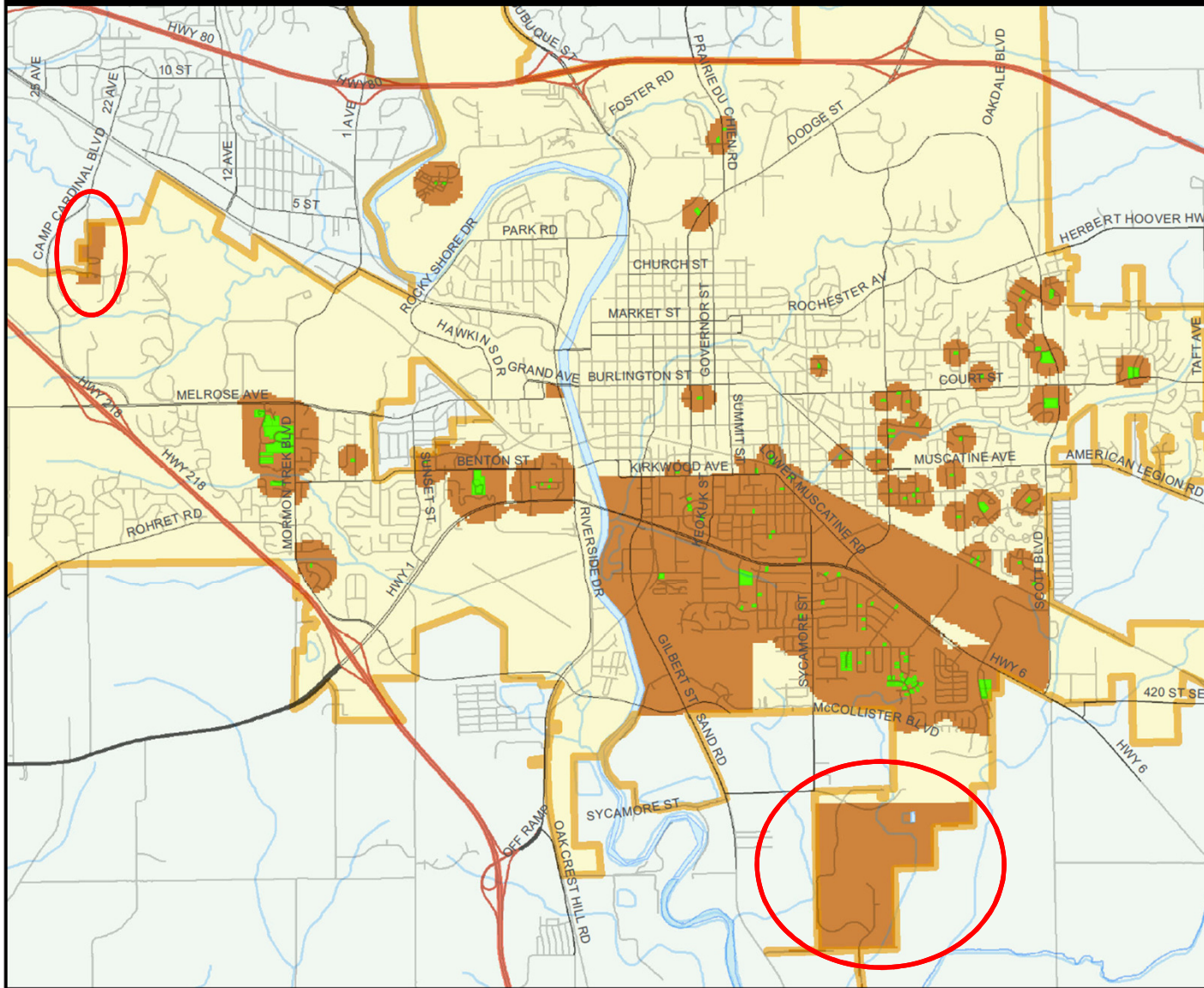
0 1 2 Miles



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Iowa City, Iowa

Affordable Housing Location Model CDBG & HOME assisted rental housing



0 1 2 Miles

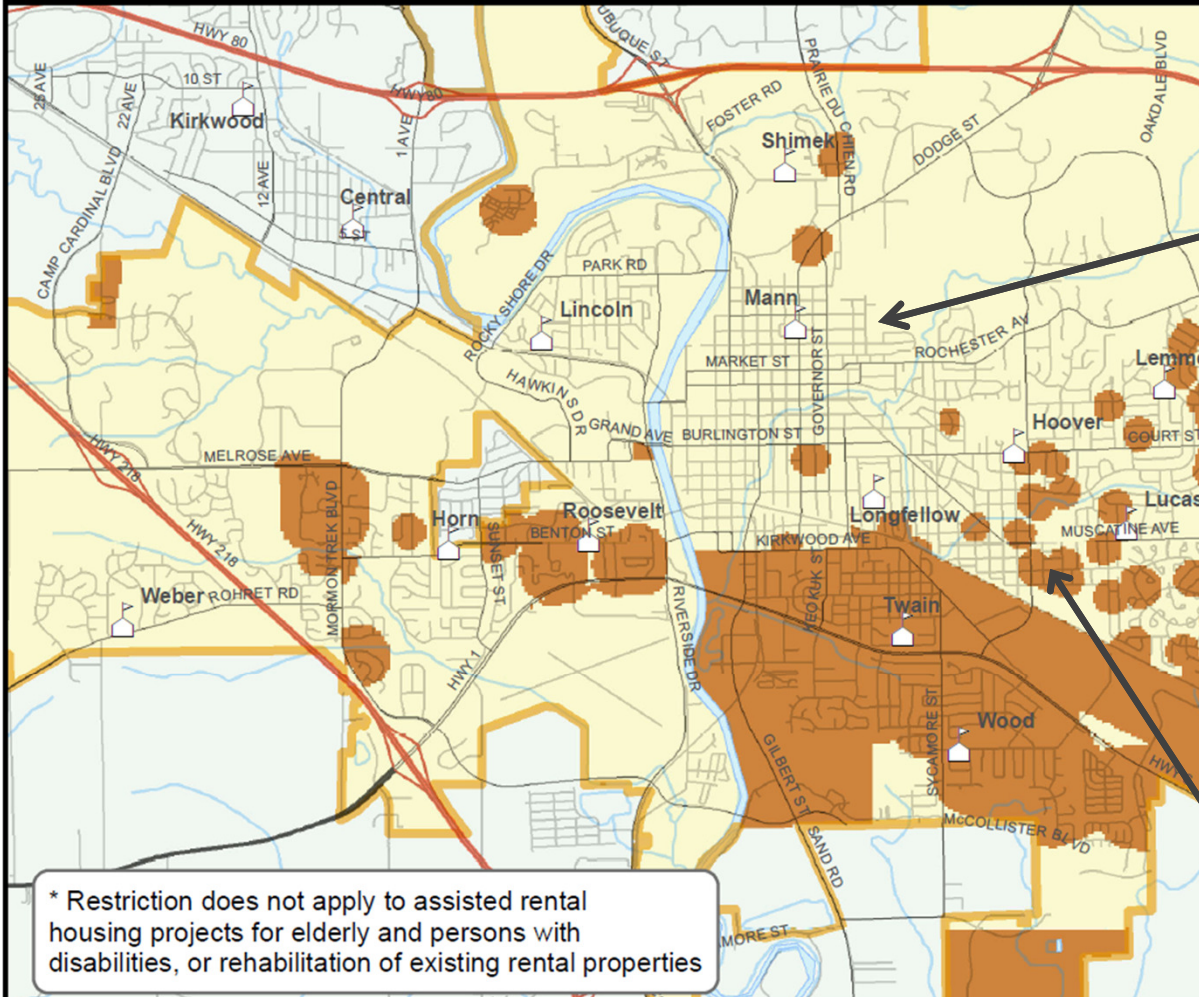


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23 distance to assisted housing
10 mobility rate
8 household income
2 residential sale prices
8 crime density
8 ITBS performance
9 free & reduced lunch rate
68 Total

Threshold Score = 71

25 distance to assisted housing
15 mobility rate
9 household income
4 residential sale prices
15 crime density
10 ITBS performance
12 free & reduced lunch rate
90 Total

* Restriction does not apply to assisted rental housing projects for elderly and persons with disabilities, or rehabilitation of existing rental properties

- Funding available for assisted rental housing
- Funding unavailable for assisted rental housing (new construction & acquisition)*

Iowa City, Iowa

Affordable Housing Location Model CDBG & HOME assisted rental housing



0 1 2 Miles

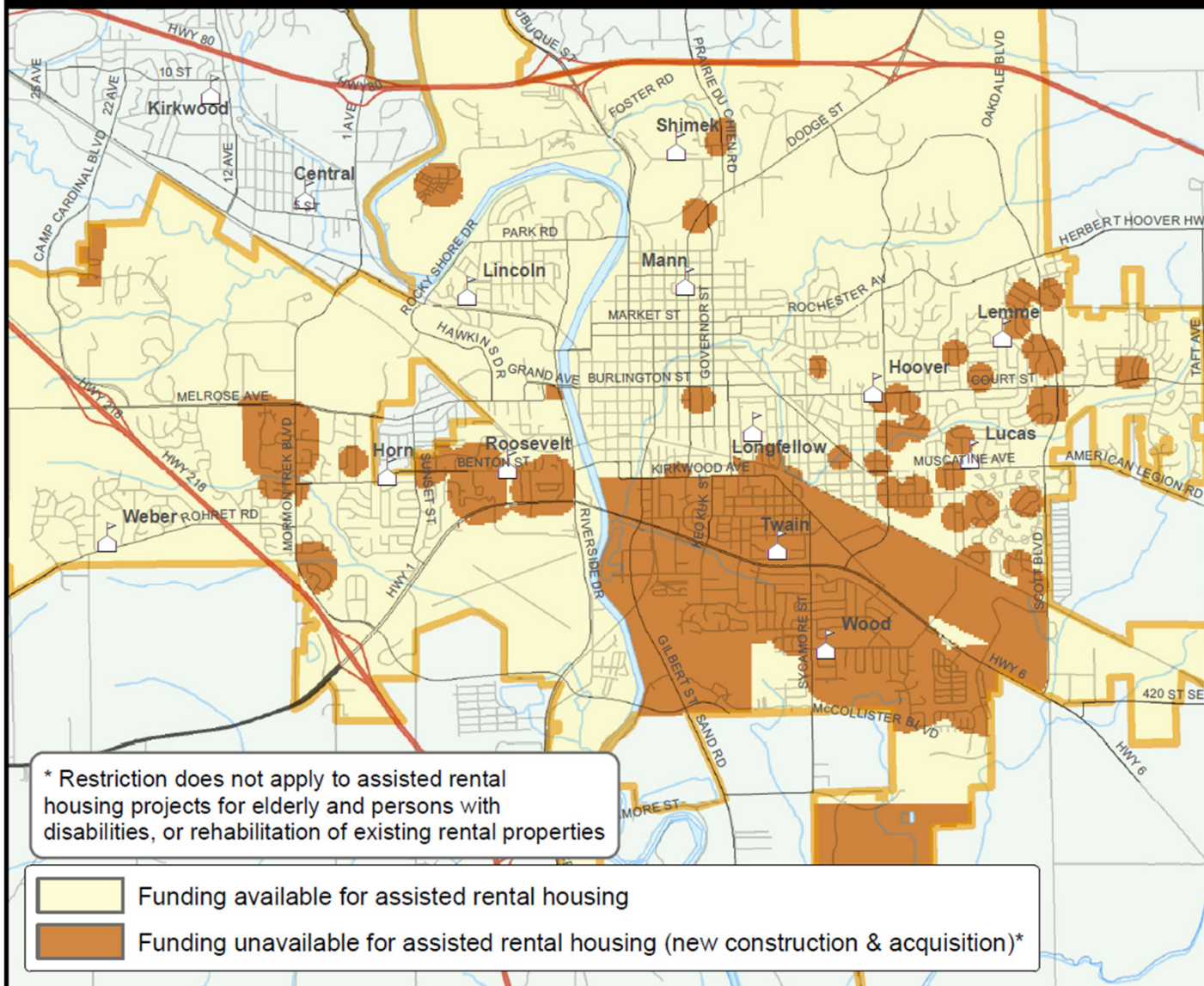


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Lessons Learned

1. City council's broad goals with regards to concentration of poverty can be incorporated in a GIS-based model.
2. Possible to combine *multiple* characteristics of neighborhood diversity into a *single* measure of location suitability.
3. GIS can provide a more objective lens to compare properties equally across communities.



Iowa City, Iowa

**Affordable Housing
Location Model
CDBG & HOME
assisted rental housing**



0 1 2 Miles

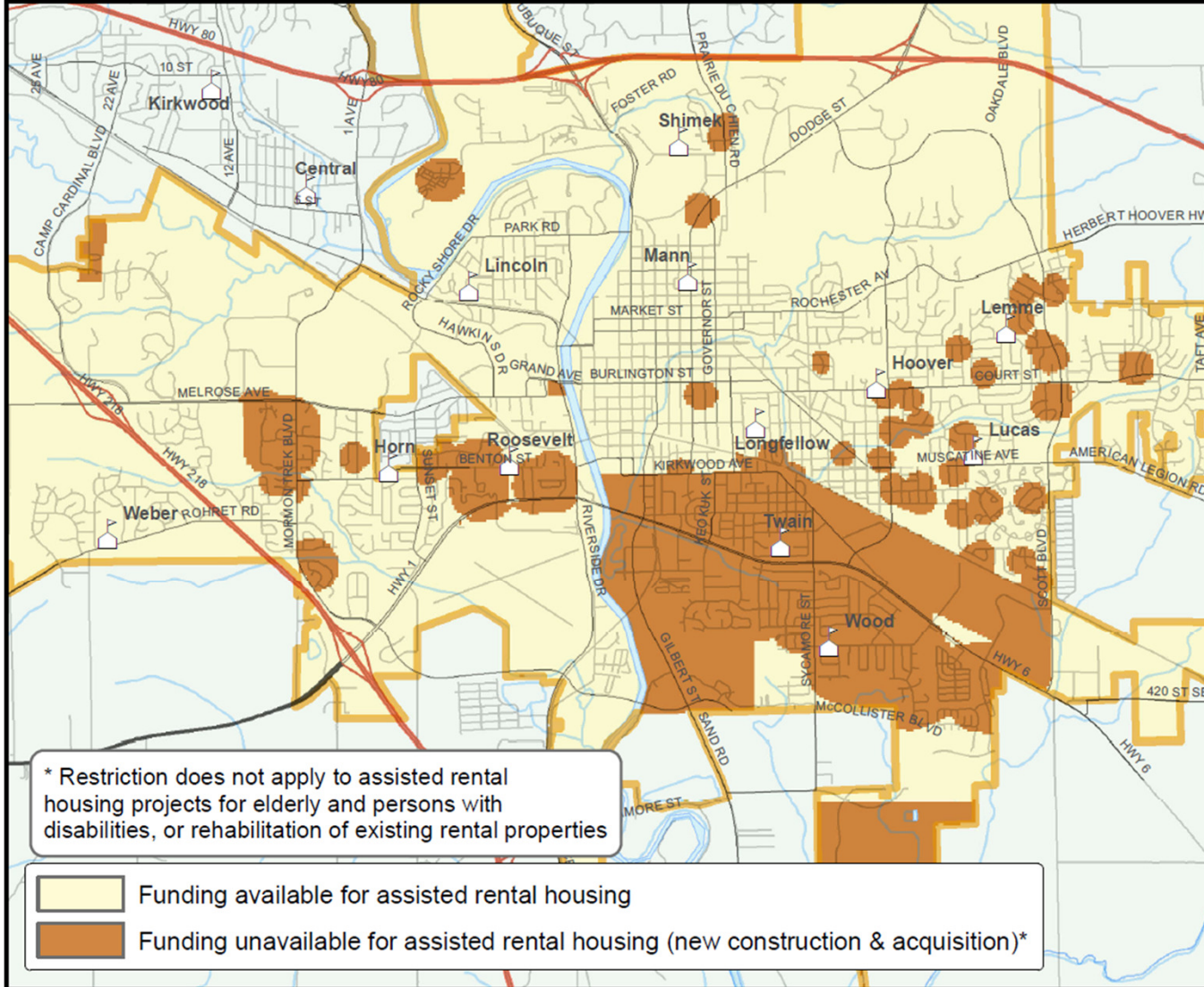


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Questions / Comments

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